

**REMARKS**

Claims 21-33 are pending in the present application. Claims 21-33 are rejected. By virtue of this response, claims 21, 23, 25-28, 31, and 32 are amended. Accordingly, claims 21-38 are currently under consideration. Amendment and cancellation of certain claims is not to be construed as a dedication to the public of any of the subject matter of the claims as previously presented. For the Examiner's convenience, Applicants' remarks are presented in the same order in which they were raised in the Office Action.

**I. Specification**

The specification stands objected to for failing to provide proper antecedent basis for the claimed subject matter. In particular, the Examiner alleges the feature "each tape cartridge having a predetermined storage capacity," and "each hard disk drive defining an electrical data storage capacity at least equal to the predetermined storage capacity of a said tape cartridge being emulated," is not described in the text disclosure as proper antecedent basis for the claimed subject matter.

In response, Applicants submit that the specification indeed supplies proper antecedent basis for the claimed subject matter. For example, paragraph [0069] describes that "Ideally, each hard disk drive unit 20 provides 10 Gigabytes, or more, of data storage ... which equals or exceeds a contemporary data backup tape cartridge having a similar external form factor." (Emphasis added). Further, paragraph [0095] describes that each magazine holding a complement of hard disk drives emulate a like complement of tape cartridges. The specification therefore clearly describes that one exemplary feature includes a magazine where each hard disk drive has a storage capacity at least equal to that of a tape cartridge being emulated. Accordingly, the claim feature has proper antecedent basis in the specification and the objection should be withdrawn.

## II. Drawings

The drawings stand objected to under 37 CFR 1.83(a) as failing to show every feature of the invention specified in the claims. In particular, with respect to claim 23, the “double linked list heuristic including pointers to a last file marker and a next file marker,” must be shown or the features canceled from the claim.

In response, Applicants submit that the “double linked list heuristic including pointers to a last file marker and a next file marker,” as recited in claim 23 is sufficiently shown in Figures 14 and 15 and described, for example, in paragraphs [0045], [0046], and [0090] of the specification. Accordingly, Applicants request withdrawal of the objection.

## III. Claim Objections

Claims 21, 23, 25-28, 31, and 32 stand objected to because of several informalities detailed on page 3, paragraph 7 of the Office Action. Applicants have amended claims 21, 23, 25-28, 31, and 32 appropriately herein and request the objection be withdrawn.

## IV. Claim Rejections under 35 U.S.C. §103

### A. Claims 21 and 22

Claims 21 and 22 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Hobbs et al. (U.S. 5,684,671; hereinafter “Hobbs” in view of Yates et al. (U.S. 6,496,791; hereinafter “Yates ’791”).

Applicants respectfully traverse the rejection and submit the Examiner has failed to present a *prima facie* case of obviousness because the applied references fail to disclose or suggest all the features of claim 21 for at least the following reasons.

First, the references, alone or in combination, fail to disclose or suggest a hard disk drive data archive system for emulating electrically a tape library including “a hot pluggable multi-drive

magazine comprising a housing and a plurality of hard disk drives installed within the housing,” as recited by claim 21. The Examiner states that Hobbs discloses, *inter alia*, “a hot pluggable multi-drive magazine (i.e., disk drive rack 50 of Fig. 12; See col. 6, lines 44-47) comprising a housing (i.e., drive cage 56 of Fig. 13) and a plurality of hard disk drives (i.e., disk drives 57 in Fig. 13) installed within said housing...” (See, page 4 of the Office Action). Applicants respectfully disagree and submit that Hobbs, in fact, does not disclose or suggest “a hot pluggable multi-drive magazine,” as recited by claim 21. In contrast, Hobbs discloses a plurality of hot swappable disk drives 57, which is not equivalent to a hot pluggable multi-drive magazine. For example, Hobbs discloses in Figure 13 and column 6, lines 36-49, that “disk drives 57 preferably are of the plug-and-play type and preferably are hot-swappable,” but Hobbs fails to disclose a multi-drive magazine that is hot-swappable. Even if rack 50 is taken as a “multi-drive magazine” Hobbs fails to disclose that rack 50 is hot pluggable as recited. Accordingly, Hobbs, alone or in combination with Yates ‘791, fails to disclose or suggest this feature of claim 21.

Second, the references, alone or in combination, fail to disclose or suggest a hard disk drive data archive system for emulating electrically a tape library including “each hard disk drive defining an electrical data storage capacity at least equal to the predetermined storage capacity of said tape cartridge being emulated,” as recited by claim 21. The Examiner states that Yates ‘791 discloses a hard disk drive data archive system for emulating electrically a tape library including a multiplicity of tape cartridge “each having a predetermined storage capacity (i.e., capacity for containing tape data; See col. 3, lines 29-37).” (See, page 4 of the Office Action). Applicants respectfully disagree with the Examiner. The portion of Yates ‘791 cited by the Examiner discloses merely that host data is stored in “virtual volumes ...indistinguishable from real tape volumes by the host computer.” (col. 3, lines 29-37). This portion of Yates ‘791 clearly fails to disclose or suggest “each hard disk drive defining an electrical data storage capacity at least equal to the predetermined storage capacity of said tape cartridge being emulated.” Accordingly, Yates ‘791, alone or in combination with Hobbs, fails to disclose this feature of claim 21.

Third, Applicants submit that the Examiner has failed to establish a teaching, suggestion, or motivation to combine the teachings of Hobbs and Yates ‘791, and has therefore failed to present a

*prima facie* case of obviousness. In particular, the Examiner has failed to provide evidence or a convincing line of reasoning as to why an artisan would find the features of the present claims obvious in light of Hobbs and Yates '791. See, MPEP 2142. The Examiner states:

“it would have been obvious to one of ordinary skill in the art at the time the invention was made to have included said tape drive emulation, as disclosed by Yates'791, in said hard disk drive data archive system, as disclosed by Hobbs, for the advantage of providing an interface for a dump of a large amount of data (e.g., administrative data), which is not suitable to real-time short transactions, using a standard access method, such as tape or virtual tape (See Yates;791, col. 1, lines 36-48).” (See, page 5, first full paragraph of the Office Action).

It is clear that the Examiner is engaging in impermissible hindsight analysis. The Examiner has merely stated a purpose of the tape drive emulation as disclosed by Yates '791, but has failed to state or indicate why this would suggest to one skilled in the art to combine the references, and in particular, modify Hobbs, to meet the features of the present claims. The Examiner has not put forth a reason for combining and modifying Hobbs in light of Yates '791 to meet the particular features of the present claims. Therefore, the rejection should be withdrawn because the Examiner has failed to establish a suggestion, teaching, or motivation in the prior art that suggest the desirability of the combination to meet the specific features of the present claims. See, *In re Rouffet*, 1149 F.3d at 1350, 1357 (Fed. Cir. 1998); MPEP §§ 2142, 2143.01 (“The prior art must suggest the desirability of the claimed invention.”).

Accordingly, for at least the above reasons, Applicants request that the rejection be withdrawn and claims 21 and 22 allowed.

B. Claims 23 and 24

Claims 23 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hobbs [US 5,684,671 A1] in view of Yates '791 [US 6,496,791 B1] as applied to claims 21 and 22 above, and further in view of Yates et al. [US 6,049,848 A; cited by the Applicants; hereinafter “Yates '848”] and Taylor [US 6,467,025 B1].

Claims 23 and 24 depend from claim 21 and are allowable over Hobbs and Yates '791 for at least similar reasons as discussed above. The addition of Yates '848 and Taylor do not cure the deficiencies of Hobbs and Yates '791, nor are they alleged to in the Office Action.

C. Claims 25 and 26

Claims 25 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hobbs [US 5,684,671 A] in view of Baca et al. [US 5,638,347 A; hereinafter "Baca"], Blackborow et al. [US 5,253,129 A; cited by the Applicant; hereinafter "Blackborow"], and Rinard [US 5,894,376 A].

Applicants respectfully traverse the rejection and submit the Examiner has failed to present a *prima facie* case of obviousness because the applied references fail to disclose or suggest all the features of claim 21. As discussed above, Hobbs fails to disclose or suggest a "hot pluggable multi-drive magazine," as recited by claim 25. For example, Hobbs discloses single hot swappable disk drives, but does not disclose or suggest hot pluggable multi-drive magazines. Accordingly, the combination of references does not disclose or suggest the features of claim 25 and the rejection should be withdrawn.

Further, Applicants submit that the Examiner continue to engage in impermissible hindsight analysis in making the rejection and has failed to establish a teaching, suggestion, or motivation to combine the references to meet the features of claim 25, and has therefore failed to present a *prima facie* case of obviousness. In particular, the Examiner has failed to provide evidence or a convincing line of reasoning as to why an artisan would find the features of the present claims obvious in light of Hobbs, Baca, Blackborow, and Rinard. See, MPEP § 2142. The Examiner has merely stated features of the various references, but has failed to state or indicate why this would suggest to one skilled in the art to combine the references, and in particular, modify Hobbs, to meet the features of the present claims. The Examiner has not put forth a reason for combining and modifying Hobbs in light of the references to meet the particular features of the present claims. Therefore, the rejection should be withdrawn because the Examiner has failed to establish a suggestion, teaching, or motivation in the prior art that suggest the desirability of the combination to

meet the specific features of the present claims. See, *In re Rouffet*, 1149 F.3d at 1350, 1357 (Fed. Cir. 1998); MPEP §§ 2142, 2143.01 (“The prior art must suggest the desirability of the claimed invention.”).

D. Claims 27 and 28

Claims 27 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hobbs [US 5,684,671 A] in view of Baca [US 5,638,347 A], Blackborow [US 5,253,129A], and Rinard [US 5,894,376 A] as applied to claims 25 and 26 above, and further in view of Tuttle [US 6,281,685 B1].

Claims 27 and 28 depend from claim 25 and are allowable over Hobbs, Baca, Blackborow, and Rinard for at least similar reasons as discussed above. The addition of Tuttle does not cure the deficiencies of the references as applied to claim 25, nor are they alleged to in the Office Action.

E. Claim 29

Claim 29 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hobbs [US 5,684,671 A] in view of Baca [US 5,638,347 A], Blackborow [US 5,253,129 A], Rinard [US 5,894,376 A] and Tuttle [US 6,281,685 B1] as applied to claims 27 and 28 above, and further in view of Yates ‘791 [US 6,496,791 B1].

Claim 29 depends from claim 25 and is allowable over Hobbs, Baca, Blackborow, Rinard, Tuttle, and Yates ‘791 for at least similar reasons as discussed above. The addition of Yates ‘791 does not cure the deficiencies of the references as applied to claim 25, nor are they alleged to in the Office Action.

F. Claims 30 and 31

Claims 30 and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hobbs [US 5,684,671 A] in view of Baca [US 5,638,347 A], Blackborow [US 5,253,129 A], and Rinard [US

5,894,376 A] as applied to claims 25 and 26 above, and further in view of Yates '791 [US 6,496,791 B1].

Claims 30 and 31 depend from claim 25 and are allowable over Hobbs, Baca, Blackborow, Rinard, Tuttle, and Yates '791 for at least similar reasons as discussed above. The addition of Yates '791 does not cure the deficiencies of the references as applied to claim 25, nor are they alleged to in the Office Action.

G. Claims 32 and 33

Claims 32 and 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hobbs [US 5,684,671 A] in view of Baca [US 5,638,347 A], Blackborow [US 5,253,129 A], Rinard [US 5,894,376 A] and Yates '791 [US 6,496,791 B1] as applied to claims 30 and 31 above, and further in view of Yates '848 [US 6,049,848 A] and Taylor [US 6,467,025 B1].

Claims 32 and 33 depend from claim 25 and are allowable over Hobbs, Baca, Blackborow, Rinard, Tuttle, Yates '791, and Taylor for at least similar reasons as discussed above. The addition of Taylor does not cure the deficiencies of the references as applied to claim 25, nor are they alleged to in the Office Action.

CONCLUSION

In view of the above, each of the presently pending claims in this application is believed to be in immediate condition for allowance. Accordingly, the Examiner is respectfully requested to withdraw the outstanding rejection of the claims and to pass this application to issue. If it is determined that a telephone conference would expedite the prosecution of this application, the Examiner is invited to telephone the undersigned at the number given below.

In the event the U.S. Patent and Trademark office determines that an extension and/or other relief is required, applicant petitions for any required relief including extensions of time and authorizes the Commissioner to charge the cost of such petitions and/or other fees due in connection with the filing of this document to Deposit Account No. 03-1952 referencing docket no. 249212014800. However, the Commissioner is not authorized to charge the cost of the issue fee to the Deposit Account.

Dated: July 29 2004

Respectfully submitted,

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